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IN THE SPECIFICATION:

(1) The paragraph [0001] from page 1, line 7 to page 1, line 13 has been amended as follows:

[0001] The present invention relates in general to a cutting tool assembly, and more particularly to such a cutting tool assembly having a weight which is reduced without reducing a rigidity of the tool assembly, for permitting a cutting tool of a large cutting diameter to be used in a small-sized machine tool with a spindle nose having a size of No. 30.

(2) The paragraph [0006] from page 2, line 27 to page 3, line 9 has been amended as follows:

[0006] In the manufacture industry these days, there is a demand for reduced sizes of machining equipments equipment, for satisfying requirements for reductions reduction in required floor spaces, energies and costs. In this respect, there is a tendency of replacements replacement of machine tools having spindle noses of BT No.40 with machine tools having spindle noses of BT No.30. However, in general, a machine tool with a spindle nose of BT No.30 is not capable of holding a heavy tool assembly whose weight is larger than about 3 kg, due to the relatively small mechanical rigidity of its components such as its spindle. Due to the limitation in the weight of the tool assembly, a large-sized cutting tool can not be used for the machine tool with the BT No.30 spindle

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nose. For example, a face milling cutter having a cutting diameter of larger than 80 mm can not be mounted on the machine tool with the BT No.30 spindle nose. That is, a milling operation with a large-sized face milling cutter can not be practiced in the machine tool with the BT No.30 spindle nose.

(3) The paragraph [0008] from page 3, line 34 to page 3, line 7 has been amended as follows:

[0008] It is therefore an object of the present invention to provide a cutting tool assembly having a weight which is advantageously reduced without undesirably reducing a rigidity of the tool assembly, for making it possible to use a cutting tool having a larger cutting diameter in a small-sized machine tool with a spindle nose having a size of No. 30. This object may be achieved according to any one of first through sixteenth eighteenth aspects of the invention which are described below.

(4) The paragraph [0027] from page 8, line 14 to page 9, line 6 has been amended as follows:

[0027] In the cutting tool assembly defined in any one of the first through eighth aspects of the invention, the relative-rotation preventing mechanism for preventing the rotation of the cutting tool relative to the arbor is provided by the receiving hole or holes formed in one of the contact surfaces and the protrusion or protrusions formed on the other

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contact surface. Thus, when the cutting tool is attached to the arbor, the rotation of the cutting tool relative to the arbor is prevented by the engagement of the receiving hole or holes with the protrusion or protrusions. This construction eliminates the conventionally required components, i.e., the keys and the axial extension portion (to which the keys are fixed), from the arbor. The elimination of the axial extension portion leads to a remarkable reduction of the axial length of the arbor, which in turn results in an advantageous reduction of the weight of the arbor without an undesirable reduction of the rigidity of the arbor, for making it possible to use the cutting tool having a larger cutting diameter in a small-sized machine tool with a spindle nose having a size of No. 30. It is noted that the receiving hole or holes may be formed in either one of the contact surfaces of the arbor and the cutting tool. Where the receiving hole or holes are formed in contact surface of the arbor, the protrusion the protrusions are formed in the contact surface of the cutting tool. Where the receiving hole or holes are formed in the contact surface of the cutting tool, the protrusion or protrusions are formed in the contact surface of the arbor.

(5) The paragraph [0028] from page 9, line 7 to page 9, line 29 has been amended as follows:

[0028] In the cutting tool assembly defined in the third aspect of the invention, the positioning hole formed in the

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contact surface of the cutting tool has the inside diameter that is not larger than 27 mm. It is therefore possible to reduce the diameter of a core portion of the cutting tool which portion provides the contact surface, and accordingly to reduce the weight of the cutting tool by an corresponding to the reduction of the diameter of the core portion. This advantage (i.e., the reduction of the weight of cooperates with the above-described cutting tool) advantage (i.e., the reduction of the weight of the arbor) to serve to further reduce of the weight of the entirety of the overall cutting tool assembly, for thereby permitting a further increase of the cutting diameter of the cutting tool that is to be used in a small-sized machine with a spindle nose having a size of No.30. Further, since the outside diameter of the positioning boss is not smaller than 22 mm, it is possible to form an internally threaded hole in an axial end face of the positioning boss, without a cylindrical wall of the positioning boss being adapted to have a considerably small thickness. That is, even with the formation of the threaded hole in the end face of the positioning boss, the arbor is provided with a sufficiently high rigidity.

(6) The paragraph [0036] from page 11, line 31 to page 12, line 8 has been amended as follows:

[0036] The cutting tool assembly 1 is designed to be used in a machine tool such as a machining center (hereinafter

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referred to as "MC") equipped with an automatic tool changer (ATC). Since the cutting tool assembly 1 has a smaller axial length than that of a conventional cutting tool assembly as shown in Fig.3, the cutting tool assembly has a weight which is reduced without reducing a rigidity of the tool assembly, for thereby making it possible to use a face milling cutter 20 having a larger cutting diameter in a small-sized machine tool with a spindle nose of BT No. 30 (7/24 taper No.30). In the present embodiment, the weight of the cutting tool assembly is about 2 kg, while the cutting diameter D2 of the face milling cutter 20 is about 125 mm.

(7) The paragraph [0042] from page 13, line 33 to page 14, line 8 has been amended as follows:

[0042] The elimination of the axial extension portion 103 makes it possible to remarkably reduce an axial length of the arbor 10 and also a distance over which the arbor 10 projects outwardly from the end face of the spindle when attached to the spindle. The reduction of the axial length of the arbor 10 leads to an advantageous reduction of the weight of the arbor 10 without an undesirable reduction of the rigidity of the arbor 10, thereby making it possible to use the face milling cutter 20 having the larger cutting diameter in the small-sized MC with the spindle nose having the size of No. 30.

(8) The paragraph [0050] from page 16, line 33 to page 17, line 7 has been amended as follows:

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In addition to the receiving holes 23, the positioning hole 24 is formed in the contact surface 22a of the arbor face milling cutter 20, such that the positioning hole 24 is located in a central portion of the surface 22a while the receiving holes 23 are located radially outwardly of the positioning hole 24. The positioning hole 24 has an inside diameter D3 which is preferably about 22-27 mm. In the present embodiment, the inside diameter D3 of the positioning hole 24 is about 25.4 mm. If the inside diameter D3 were larger than 27 mm, the outside diameter of the core portion 22 would have to be increased for providing the core portion 22 with a sufficient rigidity or strength, thereby inevitably increasing the weight of the face milling cutter 20. In this case, due to the limitation in the weight of the tool assembly usable in the machine tool with the BT No.30 spindle nose, the face milling cutter 20 can not be given a sufficiently large cutting diameter.

(9) The paragraph [0059] from page 20, line 12 to page 20, line 26 has been amended as follows:

[0059] Where the protrusions are provided by the pins 13 which are fitted in the fitting holes formed in the contact surface 12c of the arbor 10 as in the above-described embodiment, it is preferable, irrespective of the number of the pins 13 and the circumferential spacing distances between the pins 13, that the pins 13 are positioned such that the

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pins 13 do not overlap with the driving slots 12b (which are formed in the outer circumferential surface of the annular flange portion 12 of the arbor 10), as seen in the axial direction of the arbor 10. This preferable arrangement is effective to avoid reduction of the rigidity of the annular flange portion 12, namely, to assure the rigidity of the entirety of the cutting tool assembly 1, for thereby making it possible to perform a machining operation with a high degree of accuracy.